



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,651	01/24/2002	Tetsuya Tsunekawa	1319-01	7108

35811 7590 12/01/2004

IP DEPARTMENT OF PIPER RUDNICK LLP  
ONE LIBERTY PLACE, SUITE 4900  
1650 MARKET ST  
PHILADELPHIA, PA 19103

EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/980,651	Applicant(s) TSUNEKAWA ET AL.	
	Examiner Catherine Simone	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### *Withdrawn Rejections*

2. The 35 U.S.C. 102 (e) rejection of claims 1 and 3-10 as anticipated by Tsunekawa et al. of record in the Office Action mailed 12/1/03, Pages 5-6, Paragraph #7 has been withdrawn due to the Applicants response filed 10/25/04.

#### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 3-6 and 8-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 and 16 of U.S. Patent No. 6,420,011. Although the conflicting claims are not identical, they are not patentably distinct

from each other because the claims and the specification of U.S. Patent 6,420,011 are broad enough to encompass or include that which is recited in the present patent application.

Tsunekawa et al. teaches a biaxially oriented polyester film for use in a capacitor having high heat resistance, comprising a polyester (A) (ethylene terephthalate) as a main component and a polyimide (B) (polyether imide) (see col. 35, lines 42-44) in a content in the range of 5 to 30% by weight based on the total of the film (see col. 36, lines 32-33), and having a glass transition temperature in the range of 105°C to 145°C (see col. 35, lines 53-55). However, Tsunekawa et al. fails to disclose the elongation at break in a machine direction of 80% to 150% and a surface roughness (Ra) in the range of 10 nm to 140 nm. Tsunekawa et al. does, however, teach the film being stretched in the machine direction at a ratio of 3.0 to 10 times and in the transverse direction at a ratio of 3.0 to 10 times (see col. 3, lines 29-32) and also teaches the film having a surface roughness due to the coarse protrusions on the surface (see col. 5, lines 40-42 and lines 48-55 and col. 14, lines 29-35). Therefore, the optimum ranges for the elongation at break and the surface roughness would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end results as shown by Tsunekawa et al. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the polyester film in Tsunekawa et al. to have an elongation at break in a machine direction of 80% to 150% and a surface roughness in the range of 10 nm to 140 nm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. *MPEP 2144.05 (II)*.

Regarding claims 5, 6 and 8, Tsunekawa et al. also fails to disclose an onset temperature of dielectric loss in the range of 85°C to 120°C and an insulation volume resistance (IR) in the range of  $1.0 \times 10^{14} \Omega \cdot \text{cm}$  to  $5.0 \times 10^{16} \Omega \cdot \text{cm}$  at 125°C and a thermal shrinkage of not more than 2.5% after a lapse of 30 minutes at 150°C. Tsunekawa et al. does, however, teach an insulation resistance and a dielectric breakdown voltage (see col. 17, lines 39-67 and col. 18, lines 1-19) and a thermal shrinkage (see table 3). Therefore, the optimum ranges for the onset temperature of dielectric loss, the insulation volume resistance and the thermal shrinkage would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end results as shown by Tsunekawa et al. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the polyester film in Tsunekawa et al. to have an onset temperature of dielectric loss in the range of 85°C to 120°C and an insulation volume resistance (IR) in the range of  $1.0 \times 10^{14} \Omega \cdot \text{cm}$  to  $5.0 \times 10^{16} \Omega \cdot \text{cm}$  at 125°C and a thermal shrinkage of not more than 2.5% after a lapse of 30 minutes at 150°C, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. *MPEP 2144.05 (II)*.

Regarding **claims 3 and 4**, note the polyester is composed mainly of ethylene terephthalate and the polyimide is composed of polyether imide (see col. 35, lines 42-44). Regarding **claim 9**, note a metallized layer disposed on at least one surface of the film (see col. 16, lines 49-50). Regarding **claim 10**, note the metallized film for use in a capacitor (see col. 17, lines 37-42).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1, 3-6 and 8-10** are rejected under 35 U.S.C. 103(a) as being obvious over Tsunekawa et al. (US 6,420,011).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Tsunekawa et al. teaches a biaxially oriented polyester film for use in a capacitor having high heat resistance, comprising a polyester (A) as a main component and a polyimide (B) (see col. 3, lines 25-28) in a content in the range of 5 to 30% by weight based on the total of the film (see col. 6, lines 24-28), and having a glass transition temperature in the range of 105°C to 145°C (see col. 5, lines 22-29). However, Tsunekawa et al. fails to disclose the elongation at break in a machine direction of 80% to 150% and a surface roughness (Ra) in the range of 10 nm to 140 nm. Tsunekawa et al. does, however, teach the film being stretched in the machine direction at a ratio of 3.0 to 10 times and in the transverse direction at a ratio of 3.0 to 10 times (see col. 3, lines 29-32) and also teaches the film having a surface roughness due to the coarse protrusions on the surface (see col. 5, lines 40-42 and lines 48-55 and col. 14, lines 29-35). Therefore, the optimum ranges for the elongation at break and the surface roughness would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end results as shown by Tsunekawa et al. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the polyester film in Tsunekawa et al. to have an elongation at break in a machine direction of 80% to 150% and a surface roughness in the range of 10 nm to 140 nm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results.

*MPEP 2144.05 (II).*

Regarding claims 5, 6 and 8, Tsunekawa et al. also fails to disclose an onset temperature of dielectric loss in the range of 85°C to 120°C and an insulation volume resistance (IR) in the range of  $1.0 \times 10^{14} \Omega \cdot \text{cm}$  to  $5.0 \times 10^{16} \Omega \cdot \text{cm}$  at 125°C and a thermal shrinkage of not more than

2.5% after a lapse of 30 minutes at 150°C. Tsunekawa et al. does, however, teach an insulation resistance and a dielectric breakdown voltage (see col. 17, lines 39-67 and col. 18, lines 1-19) and a thermal shrinkage (see table 3). Therefore, the optimum ranges for the onset temperature of dielectric loss, the insulation volume resistance and the thermal shrinkage would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end results as shown by Tsunekawa et al. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the polyester film in Tsunekawa et al. to have an onset temperature of dielectric loss in the range of 85°C to 120°C and an insulation volume resistance (IR) in the range of  $1.0 \times 10^{14} \Omega \bullet \text{cm}$  to  $5.0 \times 10^{16} \Omega \bullet \text{cm}$  at 125°C and a thermal shrinkage of not more than 2.5% after a lapse of 30 minutes at 150°C, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. *MPEP 2144.05 (II)*.

Regarding **claims 3 and 4**, note the polyester is composed mainly of ethylene terephthalate and the polyimide is composed of polyether imide (see col. 3, lines 25-29). Regarding **claim 9**, note a metallized layer disposed on at least one surface of the film (see col. 16, lines 49-50). Regarding **claim 10**, note the metallized film for use in a capacitor (see col. 17, lines 37-42).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 3-6 and 8-10 have been considered but are moot in view of the new ground(s) of rejection.





*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571)272-1501. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Catherine Simone  
Examiner  
Art Unit 1772  
November 24, 2004

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

11/29/04